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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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OPTV/MOFO C/O MORRISON & FOERSTER LLP 1650 TYSONS BOULEVARD, SUITE 300 MCLEAN, VA 22102				MANNING, JOHN
		ART UNIT		PAPER NUMBER
		2623		

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/915,114	LEMMONS, THOMAS	
	Examiner	Art Unit	
	John Manning	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-55 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-55 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see page 2, filed 3/14/2006, with respect to the rejection(s) of claim(s) 13 and 14 under 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Miller (US Pat App Pub No 2003/0046690) under 103(a).
2. Applicant's arguments with respect to claims 1, 15, 25, 34 and 45 have been fully considered but they are not persuasive.

Applicant argues, "...there is no teaching of "at least one trigger" in these paragraphs or anywhere else in Carr". The Examiner respectfully disagrees. Carr explicitly discloses at least one trigger. "Enhancement data according to the ATVEF Specification may include enhancements each having the following components: an ATVEF announcement, a resource, and a **trigger**. The three components may be transmitted using Internet Protocol (IP) multicast to the receivers. An IP multicast standard is described in Request for Comment (RFC) 1301, entitled "Multicast Transport Protocol." RFCs may be available at website address [<http://www.ietf.org/rfc.html>]. Generally, an ATVEF announcement indicates that enhancement data is being transmitted, a resource includes one or more files that contain the enhancement data, and a **trigger** synchronizes the enhancement data with the TV transmission. An announcement may describe the location of both the resource

stream and the **trigger** stream. For each television (TV) channel, one or more enhancements may be offered as choices presented to the user, who can select which of the enhancements, if any, to view. The ATVEF Specification may utilize a one-way transmission protocol (the Unidirectional Hypertext Transfer Protocol or UHTTP, described in the ATVEF Specification) to deliver resource data" (Paragraphs 0020-0021; Also see: Paragraphs 0012-0019, 0022-0029).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4, 6-12, 15-17, 19, 24-27, 29, 31-32, 34-36, 39, 44-45 and 54-55 are rejected under 35 U.S.C. 102(e) as being anticipated by Carr (US Pat App Pub No 2003/0133043).

In regard to claim 1, Carr discloses a method and apparatus for delivering enhancement data over a separate delivery mechanism. The claimed steps of "transmitting a video program employing a first television channel operating at a first frequency" and "transmitting enhancement data and at least one trigger employing a

second television channel operating at a second frequency" are met by Figure 1A. "To provide for greater flexibility and/or to alleviate bandwidth concerns of the transport medium 22, some embodiments of the invention transmit (using IP multicast) enhancement data associated with multiple A/V channels (e.g., TV channels) over a link that is separate from the transport medium used to transmit A/V content (or, alternatively, that is part of the same delivery mechanism as the A/V content but is not associated with any A/V channel, e.g., an MPEG-2 transport stream with ancillary information in a data-only program separate from the A/V programs). The separate delivery mechanism to deliver the A/V content may be a separate transport stream or a separate link 20 such as a general purpose data link or some other type of communications link. Thus, according to some embodiments, enhancement data is separated from the A/V data at the transport operator system 14 (or alternatively, at another source), with the A/V content transmitted over the transport medium 22 and the enhancement data transmitted over the secondary link 20 (or a separate transport stream)" (Paragraph 0025). "Thus, effectively, some embodiments of the invention separate A/V content and enhancement data at the source (e.g., the transport operator system 14). The A/V content is transmitted over the transport medium 22, while the enhancement data (along with special announcements) associated with multiple A/V channels are combined and multiplexed onto a separate transmission stream. At the receiving end (e.g., receivers 16), the combined enhancement data are separated (demultiplexed) and associated with a currently tuned A/V channel" (Paragraph 0030). Carr explicitly discloses at least one trigger. "Enhancement data according to the

ATVEF Specification may include enhancements each having the following components: an ATVEF announcement, a resource, and a trigger. The three components may be transmitted using Internet Protocol (IP) multicast to the receivers. An IP multicast standard is described in Request for Comment (RFC) 1301, entitled "Multicast Transport Protocol." RFCs may be available at website address [<http://www.ietf.org/rfc.html>]. Generally, an ATVEF announcement indicates that enhancement data is being transmitted, a resource includes one or more files that contain the enhancement data, and a trigger synchronizes the enhancement data with the TV transmission. An announcement may describe the location of both the resource stream and the trigger stream. For each television (TV) channel, one or more enhancements may be offered as choices presented to the user, who can select which of the enhancements, if any, to view. The ATVEF Specification may utilize a one-way transmission protocol (the Unidirectional Hypertext Transfer Protocol or UHTTP, described in the ATVEF Specification) to deliver resource data" (Paragraphs 0020-0021; Also see: Paragraphs 0012-0019, 0022-0029).

In regard to claims 2-3, 16-17 and 26-27, Carr discloses the use of a "general purpose data link or some other type of communications link" as the "second frequency" (See Paragraph 0025). The general purpose data link is a service channel. Accordingly, the other type of communications link is not a service channel.

In regard to claims 4, 7, 9 and 55, Carr discloses conforming to the ATVEF specification (See Paragraph 0019).

In regard to claims 6, 11, 19, 24, 29 and 44, the claimed limitation of "transmitting display channel instructions with the enhancement data, wherein said display channel instructions indicate at least one service channel with which said enhancement data may be associated" is met by Figures 1A, 4 and 5. "The special announcement includes data identifying locations of one or more ATVEF announcements associated with that A/V channel. At the receiving end, instead of ATVEF announcements arriving at the expected location (e.g., predetermined IP address and port), the special announcements arrive at the expected location. Using information in a special announcement, each receiver 16 can then locate the one or more ATVEF announcements received over the secondary link 20 and associate them with the tuned channel" (Paragraph 0029, Lines 10-19). "The enhancement data, including announcements, resources, and triggers, are transmitted (at 208) over the secondary link 20. A special announcement is also transmitted (at 210) with the enhancement data to indicate that ATVEF announcements associated with the A/V channel is available from a different source" (Paragraph 0040).

In regard to claims 8 and 54, the claimed limitation of "transmitting display time instructions with the enhancement data, wherein said display time instructions indicate at least one time at which said enhancement data may be rendered" is met by Figures 1A, 4 and 5. "Generally, an ATVEF announcement indicates that enhancement data is being transmitted, a resource includes one or more files that contain the enhancement data, and a trigger synchronizes the enhancement data with the TV transmission" (Paragraph 0021, Lines 1-5).

In regard to claims 10 and 12, Carr discloses, "enhanced content may be rendered independent of the channel currently viewed by a user" and "enhanced content may be rendered independent of the channel currently viewed by a user". "In accordance with some embodiments, the enhancement data associated with multiple A/V channels may be grouped and stored in the transport operator system 14 and/or the one or more servers 18 and multiplexed into a transmission stream on the secondary link 20. Consequently, according to some embodiments, enhancement data associated with multiple A/V channels may be combined into a transmission stream on the secondary link 20. At the receiving end, the combined stream of enhancement data is separated and associated with a currently tuned A/V channel" (Paragraph 0028; Also see: Paragraph 0025). The disclosed enhancement data is not associated (with respect to the transmission) with any channel.

In regard to claim 15, the claimed limitation of "removing said enhanced content from said video information to produce non-enhanced video information" is disclosed by Carr. "Thus, effectively, some embodiments of the invention separate A/V content and enhancement data at the source (e.g., the transport operator system 14). The A/V content is transmitted over the transport medium 22, while the enhancement data (along with special announcements) associated with multiple A/V channels are combined and multiplexed onto a separate transmission stream. At the receiving end (e.g., receivers 16), the combined enhancement data are separated (demultiplexed) and associated with a currently tuned A/V channel" (Para graph 0030; Also See Paragraphs 0031-0054).

Claims 25, 31, 34-36, 39 and 45 are met by that discussed above for claim 1.

Video information is accessed at the headend (transport operator 14) and the enhancement data is removed and transmitted to the receiver over a second channel via a communications network.

In regard to claim 32, Carr discloses that the enhancement data is stored at the headend (See Paragraph 0035). Carr discloses that the enhancement data is located on the secondary link 20, therefore the location of the information to be received is not fixed. The location of the enhancement data is associated with the user-selected channel.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 5, 18, 28, 30, 33, 37, 40-41 and 46-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carr.

In regard to claim 5, Carr discloses transmitting enhancement data over a general-purpose data link or a service channel. Carr fails to explicitly disclose that the service channel is of smaller bandwidth than the primary or first channel. However, the examiner takes Official Notice that it is notoriously well known in the art to have service

channel that is of smaller bandwidth than the primary channels so as to conserve the system's bandwidth. Consequently, it would have been obvious to one of ordinary skill in the art to modify the service channel of Carr to have a smaller bandwidth than the primary channel for the stated advantage.

In regard to claims 18, 28, 30, 33 and 37, Carr discloses that the method and apparatus may be used in an MPEG based system. Carr fails to explicitly disclose that the enhancement data is compressed prior to transmission and subsequently decompressed upon being received. However, the examiner takes Official Notice that it is notoriously well known in the art to compress data prior to transmission and decompressing the compressed data upon being received so as to make efficient use of the system's available bandwidth. Consequently, it would have been obvious to one of ordinary skill in the art to modify Carr with the aforementioned data compression for the stated advantage.

In regard to claims 40-41 and 46-49, Carr discloses that the enhancement data is located on the secondary link 20; therefore the location of the information to be received is not fixed. The location of the enhancement data is associated with the user-selected channel. Although suggested, Carr fails to explicitly disclose an adjustable tuner for receiving varied frequencies. However, the examiner takes Official Notice that it is notoriously well known in the art to use an adjustable tuner for receiving varied frequencies so as to take advantage of frequency division multiplexing. Consequently, it would have been obvious to one of ordinary skill in the art to modify Carr with an adjustable tuner for receiving varied frequencies for the stated advantage.

In regard to claims 50 and 51, Carr fails to explicitly disclose storing part of the enhancement data in allocated storage local to the receiver. However, the examiner takes Official Notice that it is notoriously well known in the art to store part of the enhancement data in allocated storage local to the receiver so as to allow the enhancement data to be used more than once without a second transmission thereby reducing the demand on the network. Consequently, it would have been obvious to one of ordinary skill in the art to modify Carr with the storing part of the enhancement data in allocated storage local to the receiver for the stated advantage.

In regard to claims 52 and 53, Carr discloses that the method and apparatus may be used in an MPEG based system. Carr fails to explicitly disclose that the enhancement data is compressed prior to storage or decompressing compressed data. However, the examiner takes Official Notice that it is notoriously well known in the art to compress data prior to storage and decompressing the compressed data as needed so as to make efficient use of the system's available storage space. Consequently, it would have been obvious to one of ordinary skill in the art to modify Carr with the aforementioned data compression for the stated advantage.

In regard to claim 54, the claimed limitation of a "program code is further operable to render an enhancement employing time information contained in said enhancement data" is met by Figures 1A, 4 and 5. "Generally, an ATVEF announcement indicates that enhancement data is being transmitted, a resource includes one or more files that contain the enhancement data, and a trigger

synchronizes the enhancement data with the TV transmission" (Paragraph 0021, Lines 1-5).

7. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (US Pat App Pub No 2003/0046690).

In regard to claim 13, the claimed limitations of "transferring video information, compliant with the ATVEF standard for type A transport, to a transmission system", "altering a URL contained in said video information" and "transmitting said video information" are met by Figures 3 and 5. "One technique is to extract (from the television signal) the original triggers corresponding to the original advertisements, and then replace the original triggers in the television signal with substitute triggers (having substitute URL links for instance). Various trigger extraction and insertion hardware, software, and techniques may be used to perform this operation" (Paragraph 0053). "[W]hen selectively replacing original triggers/links in the television signal with substitute triggers/links while maintaining the original audio and video portion of the original advertisement. Other techniques include the insertion of substitute triggers that have redirection commands. These triggers can be inserted in the original television signal as completely new triggers, or existing triggers may be modified to have this redirection command added" (Paragraph 0055, Lines 6-13). Miller fails to disclose that the video information is competent with the ATVEF standard for type A transport.

In regard to claim 14, only the host name is changed because the substitution changes the link provided to the user. Time, channel and other attribute information are not changed.

8. Claims 20-23, 38 and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carr in view of Miller.

In regard to claims 20, 38 and 42-43, Carr fails to disclose replacing the enhancement data with other enhancement data. Miller teaches replacing enhancement data with other enhancement data so provide local cable providers the capability of substituting national advertisement with local advertisements. "As an overview, one embodiment of the invention provides an interactive information aggregation presence on the Internet or other location for offbroadcast transmission of advertisement swapping trigger information, which can include interactive television triggers, accompanying content and data, addresses such as URL addresses, and the like. An embodiment of the invention can be implemented as an interactive television system that can perform real-time aggregation of trigger information for advertisement swapping through cooperation with content providers or via reception of trigger information (including interactive content) provided by third-party entities. The aggregated information can be used to perform advertisement swapping, such as by switching to a channel that carries substitute advertisements or by retrieving substitute advertisements (including overlay information) from a storage location. The

advertisement swapping can also include replacement of links (such as URL links) that are present in the original advertisement with substitute links" (Paragraph 0015). Consequently, it would have been obvious to one of ordinary skill in the art to modify Carr with the replacing the enhancement data with other enhancement data for the stated advantage.

In regard to claim 21, Carr discloses that the enhancement data is accessed employing a secondary link, as shown as secondary link 20 of Figure 1 (See Paragraph 0025).

In regard to claims 22, Miller discloses that the other enhancement data is accessed on a "near" real basis (See Paragraph 0015).

In regard to claim 23, Carr discloses that the enhancement data is stored at the headend (See Paragraph 0035).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Manning whose telephone number is 571-272-7352. The examiner can normally be reached on M-F: 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JM
June 8, 2006



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